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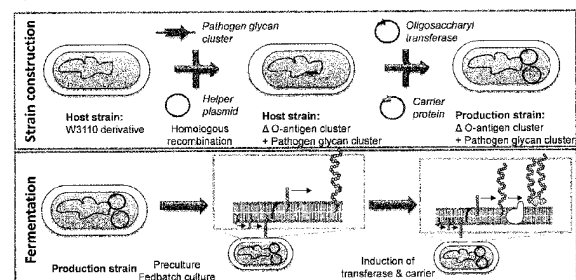
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(54) **METHODS AND COMPOSITIONS FOR IMMUNE PROTECTION AGAINST EXTRA-INTESTINAL PATHOGENIC E. COLI**

(57) Compositions and methods are described for inducing an immune response against extra-intestinal pathogenic *Escherichia coli* (ExPEC) to thereby provide immune protection against diseases associated with ExPEC. In particular, compositions and methods are described for using conjugates of *E. coli* polysaccharide antigens O25B, O1A, O2, and O6A covalently bound to a detoxified exotoxin A of *Pseudomonas aeruginosa* (EPA) carrier protein as vaccines for the prevention of invasive ExPEC disease caused by ExPEC serotypes O1A, O2, O6A and O25B.

Figure 1





EUROPEAN SEARCH REPORT

Application Number

EP 23 17 6994

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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 12 October 2023	Examiner Irion, Andrea
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	



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